

REMARKS

In the Office Action dated January 30, 2005, claims 1-3 and 5 are rejected under 35 U.S.C. §102(b). Claims 1 and 2 have been amended herewith. In view of the amendments and at least for the reasons set forth below, Applicants believe that the rejections are improper or have been overcome based on at least the reasons set forth below.

As claimed in amended claims 1 and 2, the method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers in which at least one of the polarization-maintaining optical fibers has a pair of stress applying sections where the amount of angular disagreement of planes of polarization of the polarization-maintaining optical fiber having the stress applying sections is estimated from a function which uses positions and heights of two peaks of brightness as variable quantities corresponding to the stress applying sections of a transmitted light produced by irradiating light on the lateral side of the polarization-maintaining optical fiber. As a result, the angular disagreement of the polarization-maintaining optical fiber can be estimated accurately.

In the Office Action, claims 1-3 and 5 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,611,015 to Tokomary et al. (“*Tokomaru*”). The Examiner states that *Tokomaru* estimates the amount of angular disagreement of the planes of polarization using the positions and heights of two peaks of brightness of the transmitted light, since a height of a part of a signal or a curve is inherently considered under the definition of a “peak.” However, in the method for splicing two polarization-maintaining optical fibers of *Tokumaru*, first and second numerical values are calculated from relative positions of three peaks of brightness of the transmitted light, and the two polarization-maintaining optical fibers are aligned so as to equalize the first and second values. Therefore, as the Examiner recognized in the Office Action dated October 28, 2003, a comparison of values of the heights of two peaks of brightness of the transmitted light is not performed in *Tokumaru*. In other words, in *Tokumaru*, the heights of peaks are not used as variable quantities for the alignment of the optical fibers, but are merely used as guides for determination of the positions of the peak. Therefore, *Tokumaru* does not teach or suggest method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers in which at least one of the polarization-maintaining optical fibers has a pair of stress applying sections where the amount of

angular disagreement of planes of polarization of the polarization-maintaining optical fiber having the stress applying sections is estimated from a function which uses positions and heights of two peaks of brightness as variable quantities corresponding to the stress applying sections of a transmitted light produced by irradiating light on the lateral side of the polarization-maintaining optical fiber, as required by the claimed invention.

Moreover, the Examiner states in the Office Action that the height of a part of a signal or a curve is inherently compared to that of the other part of the signal or the curve where as alleged, by definition, a “peak” is a part of a signal or curve that is higher than other parts of the signal or curve. See, Office Action, p. 3. However, this indication merely explains how the part of the signal or the curve is regarded as the peak, and thus does not indicate a comparison of the heights of two parts of the signal or the curve which are previously regarded as peaks and does not indicate a use of the heights of peaks as variable quantities for the alignment of the optical fibers. Based on at least these reasons, Applicants believe that the *Tokumaru* is distinguishable from the claimed invention.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY


Thomas C. Basso
Reg. No. 46,541
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 807-4310

Dated: May 2, 2005